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Audition restored by the Removal of a Tumor from Hyo-Thyroid Region.

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The patient was a lady in middle life, well marked scrofulous diathesis, and sanguineo-lymphatic temperament. For eight or nine years past, she has suffered more or less inconvenience from a tumour over the larynx, and during the last eighteen months has been deprived, entirely, of the use of the right ear. The history of the case as related by herself is substantially as follows.

In Aug. 1834, she first discovered something over her windpipe, as she has it, about the size of a chestnut. It occasioned but little uneasiness at the time, no pain, and about stationary, as to size, for two or three years. About this time an unnatural beating was discovered in the right ear, and the function of that organ became gradually impaired. The sensation of throbbing was synchronous with the systole of the heart, and by pressure upon the common carotid it would almost entirely cease, and hearing, for the time being, would be much improved. Latterly, however, pressure upon the carotid, has had no other effect than to arrest the throbbing, audition becoming more and more affected—as the tumour increased in size—until for the period above mentioned it has been entirely obliterated. And the fact should not be lost sight of, that during this time the tumour has increased in size more than it had done for the seven preceding years taken together.

At the time I was consulted, the tumour had attained the size of a hen's egg, and in its general outlines not dissimilar to that body, only with a greater difference of longitudinal and transverse diameters. The morbid growth had occasioned a great deal of pain, and for twelve months past had very much impeded deglutition, several efforts being often necessary before the morsel could be swallowed. The details of the operation, contained in my notes of the case, I omit, but that the objects of this paper may be answered, the parts implicated will be hastily enumerated.

The base of the tumour was firmly attached to the os hyoides about the mesial line, and descending obliquely, covered the right fronto-aspect of the thyroid cartilage.

In the dissection, almost the entire basis of the os hyoides was laid bare, and the same may be said of the cutiform cartilage, except its left and inferior margins. Almost the entire mass of the right, together with a small portion of the left hyo-thyroideus muscle was dissected out with the tumour—the muscular fibres being very much degenerated, and nearly lost in the walls of the sac. The oneo-hyoid muscles of both sides were laid bare at their insertions, and a few fibres of the one on the right side were removed with the knife. The ranim vein—in this patient remarkably large—was cut and ligated.

During the dissection on right side of the tumour the patient complained

loudly of pain. It was, however, but momentary, and when the operation was completed, she declared she could "hear as well as ever."

In a few days deglutition became easy and natural, the wound healed kindly, and now, several months after the operation, the hearing continues good.

Now that between the growth of the tumour in question, and the gradual loss and final obliteration of hearing in the right ear—the removal of the morbid growth, and the instantaneous recovery of audition, there exists the relation of cause and effect, is a conclusion not easily to be avoided. Well, the facts in the case are stated, the data all given; who will solve, for us, the problem?

ANALECTA.

On the starched Bandage in Fractures.—M. Seutin, the eminent surgeon of Brussels, accompanied by Doctor Simonart, has just paid this city a visit. As is well known, he is the inventor of the use of the starch bandage in fractures. He availed himself of an opportunity afforded him by Mr. Cusack in Steevens' Hospital to put his apparatus on the leg of a little boy who had fractured both bones a fortnight before. Sir Philip Crampton, Mr. Cusack, and a number of Surgeons and pupils were present; M. Seutin stated how anxious he was himself to exhibit the application of the apparatus, because he had found that one great reason of its not having been more extensively used, nay, in some instances not even tried, was owing to its having been generally misunderstood. One great objection had been, that the apparatus, when once put on, remained a hard case round the limb, allowing no room for the necessary degree of tumefaction, and consequently endangering the safety of the member by inducing gangrene; that as the parts were hid from view, no timely warning was afforded of such accidents. As the starch bandage *was* used, there was much truth in this objection; as M. Seutin *now* uses it, the occurrence of such dangers is obviated. He first applied a calico roller, moderately firm, round the leg; no starch was put on the inside of this bandage, as it would stick in the hairs, and prove unpleasant to the skin when hardened. After it was applied, some starch was smeared along its surface; wherever pressure was wished to be avoided, pledgets of soft lint were put; a soft pasteboard splint, a little starched on the inside, was then placed on each side of the leg, and then one behind, the part about the heel and the hollow of the tendo achillis being well stuffed with lint; a pasteboard splint was also then put in front. These were secured by a bandage smeared with starch, the end of the bandage being turned down and stuck in front, so as to be easily found. More starched bandage was applied, till the whole was a firm and smooth case. This should be left for twenty-four hours; when it has become quite dry, it is then slit down along the whole front of the outside in the space between the tibia and fibula, down to the end of the foot; when the sides of this opening are held aside, the state of the limb can be examined. If it is found to press too much on any part, a little lint can be inserted, so as to raise the apparatus from the place pressed on: should it be desirable, any part of it covering a wound, &c. can be cut away, to allow the proper dressings to be applied, and the discharge to get out. Modified as it now is, we

cannot but think, that M. Seutin will have the gratification of seeing his method generally used. We insert the accounts given by his pupils, MM. Simonart and Porcelet, of the circumstances to be observed in the application of the starch bandage.

"In the construction of the starch bandage,* use is made of the bandages of Scultetus, long or short, made of half-used linen, neither too coarse nor too fine, replaced if necessary in the central layers, by rather long compresses, extended the length of the splints, or even by the immediate application of pasteboard on the limb. Long bandages are preferred, wherever it is requisite to establish a regular compression, and that the lifting of the injured part cannot entail inconvenience to the patient, sharp pain, derangement in the coaptation, &c. Short bandages are reserved for contrary cases; they are disposed generally in three planes; it is between the layer in contact with the skin and the middle layer, that the pasteboard splints are generally placed; short bandages are especially employed in lesions of the pelvic extremity. The length or breadth of the bandages is proportioned to the part which ought to be covered by them. From the bandage which is applied immediately to the skin, more care is used than in the common bandage, to remove coarse edges, folds, irregular plaits; folds should be repeated as seldom as possible; these are kept as far as can be from the bony eminences, from excrescences, &c., which are first defended by some soft material, a layer of wadding, lint, &c., placed over or around these eminences, that besides are not entirely covered by all the bandages. These last precautions have for object to diminish the degree of pressure that the bandage could exercise more on them than on the soft parts, whose level these eminences exceed. Great care is taken that the bandages, and the containing apparatus generally, do not establish strangulation in some point of the length of the limb.

"All these minute cares, just described, are less to be enforced in applying the superficial layers of the bandage; in the case of penury, linen may be replaced by remnants of handkerchiefs, aprons, towels, &c.; often in fractures of the leg, when walking is authorized, we surround above the level of the ankles, the dried bandage with bandages composed of old handkerchiefs, intended to maintain the efficiency of the apparatus.

"A very useful precaution is, that when the bandage is exhausted, the end should be folded or turned down on itself to a certain extent, and stuck so in a conspicuous part of the bandage, so that if it should be necessary to remove the apparatus, no difficulty should be experienced in finding the end of the bandage.

* The following is the interesting account of what first led M. Seutin to the use of the starch bandage; it is not the first time mankind has been indebted to animals for valuable therapeutic agents: "A lady of this city was very fond of a goat, which one day broke its paw, while I was in the house; she besought me to relieve the poor animal: I willingly consented, but I was very much embarrassed when the question of contriving some means to keep the part fixed presented itself, for nothing offered fit to keep the fragments together. While I was thinking what to do, I observed an old piece of rope belonging to a well, and some starch which was for stiffening linen. I availed myself of these two means which chance presented to me, and I constructed on the spot with them a bandage, which I was astonished to find some days after perfectly adapted to the case. This circumstance opened my eyes to the use that might be drawn from starch in the therapeutics of the affections with which I had been occupied for some time, and it is thus that my experiments began on the bandage, which has since rendered me much service."

"Also, always take care to leave uncovered the ends of the fingers or toes, whose variations of colour and of temperature furnish you with a sufficiently just measure of the analogous changes of the other parts of the limb covered by the bandage. Does a suppurating wound, or one that we cannot prevent passing into suppuration, exist on the injured limb, either the turns of the bandage are so arranged, that the solution of continuity of the soft parts is not completely covered by them; the edges of it are either cut out or turned back and stuck so with the starch; the bandage is fully rolled round the wound of which it takes the impression, marked by the blood or pus, it is raised by means of bent scissors, or of a cutting nippers (*emporte-piece.**) One or several openings are cut in the central part, and as much as possible in the longitudinal direction; these openings should be large enough to allow a passage for the secretions, but not so large as to permit a protrusion and consecutive strangulation of the fleshy granulations.

"The compression made by the starch bandage ought never to reach, and especially in fractures, that degree of violent constriction that practitioners, as little familiarized with M. Seutin's method as with the general principles of compression, have believed to be necessary for the resolution or prevention of inflammation. A like error can only expose to a rapid disorganization, to accidents too often set down to the effects of the starch bandage, and which, in our opinion, ought rather to be attributed to the surgeon who does not judiciously regulate the application of a means so essentially useful in other hands. *Compression, as understood by M. Seutin, ought to stop at a gentle, methodical pressure, sufficient to moderate the afflux of blood, but not to stop it, a pressure which in many circumstances, at the instant of its application, is only retentive, and which never acts on the soft parts, so as to be able to induce mortification in their tissues,* and even in fractures we frequently see the clinical professor apply the first layers of bandages, in a manner simply retentive; those which support the splints only make a slight degree of pressure, particularly near the seat of the fracture. In complicated fractures, we have often heard him repeat to his pupils, the express recommendation to employ only a very moderate compression, particularly the first few days, and even in severe cases to dispense with it completely, adding, that tissues lacerated, violently contused, or under the influence of of a violent shock, would more than ever tend to disorganization, if in the period of reaction, the least exterior cause should join itself to their already dangerous tendency. In old men, wounded cathetic subjects, the precautions should be even yet more minute.

"Practice alone will tell to what degree compression must be carried or restricted; theory can only guess. It should always be made to act from the extremities to the centre, as evenly as possible, care being taken to avoid its immediate action on bony or tendinous prominences, or excrescences, &c. The filling up is formed by means of compresses, folded on themselves, or enclosing old linen, tow, charpie, wadding, cotton, &c.; they can also be formed of soft pieces of pasteboard put one over the other, and fitted to the hollow that they are destined to fill. The starch keeps together the edges, or the opposed surface of the fillings up.

* M. Seutin has invented a scissors of a particular construction, for the purpose of setting up the apparatus when dried, or cutting out such parts of it as may be necessary. Mr. Milliken, the cutler, of Grafton street, has the pattern of it, and is making one by M. Seutin's direction.

"The starch paste ought to be, if possible, freshly prepared, and without lumps. Starch lightly boiled (in an iron saucepan without the lid) has appeared to us to present all the advantages of dextrine, applied in the manner of M. Velpeau, without partaking the disadvantages that this substance presents. Like it, it dissolves in cold water, readily imbibes the bandages plunged into its solution; it is cheaper, and not so scarce, and does not make the bandages stick too closely together, so that when it is necessary to detach them they tear, if water has not penetrated all the layers of the bandage.

"Notwithstanding these qualities of boiled starch, M. Seutin nearly constantly employs the amylaceous fecula not boiled, which offers the great advantage of being met with every where, and not to demand much preliminary preparation. It is first diluted with cold water, then with boiling water, as is done by washerwomen. He prefers this simple solution, to that united to plaster, lime, alum, acetate of lead, Flanders' glue, &c. He also gives it the preference to the white of egg, or the composition of M. Larry, to flour, fresh plaster, turpentine, isinglass, resin, pitch, the gums, the gum-resins, the different mixtures in which resin enters, either as base or as adjuvant. Comparative trials of these different substances have led to this choice. The starch paste can be spread by means of a brush, or of the hand. The brush is indicated, when every motion should be avoided, or when both hands of the surgeon should remain free and not sticky, while putting on the apparatus. If it is desirable in stiffening the bandage to use the hand, the hollow of the palm, covered with starch, is carried flat, successively from the bottom to the top, and *vice versa;* then circularly, so that the edges of the bandage overlapping each other, may be first raised and starched, then flattened down again, and the inequalities effaced. A method of stiffening the bandage, as expeditious as commodious, and often employed by M. Seutin, consists in taking in the hollow of the hand a certain quantity of starch concreted by the cold; as the bandage is unrolled the surgeon makes it pass lightly over this substance, from which it takes at each turn a portion, which makes its turns stick together, and to the planes either over or under it. A light compression of the bandage effaces the irregularities which the starch might present in its dissemination.

"Whatever plan is followed, we should carefully avoid to starch the inside of the layer of bandage immediately applied to the skin, in order not to expose this last to a rough contact, a frequent source of smart itching. When the bandage is all applied, its surface is thinly starched. Care should be taken not to starch on the folds over joints, over bony prominences, or excrescences, nor on those edges of the bandage which may exercise any friction on the skin, and soon bring on excoriations, always disagreeable, often even very painful. The external layers of the apparatus should be freely starched.

"*Splints.*—Pasteboard is almost all that is necessary. It should offer sufficient resistance; a thickness of a line to a line and a half, but not to be too compact, so that water may readily penetrate it. If necessary, a portion of a hat box, book cover, &c., may be used instead. It is always better to tear it than to cut it, so that the edges, which only end by degrees, may adapt themselves more uniformly to the convex surface of the limbs, that the bandage may act gradually on all the surface of the splint; and to avoid troublesome impressions on the skin, which the compression of the bandage on the too regular edges of the splint, that is made by cutting, never

fails to induce. The shape of the splints is regulated according to the case. When the splint is fit for application, it is lightly moistened, by making it pass quickly through tepid water, or plunging it some minutes in cold water; in this manner, although flexible, the splint yet preserves a certain degree of firmness. It is accurately applied to the convex surface of the parts, by bending it slightly and longitudinally on itself, in several parts of its surface. Its power of being softened makes it readily adapted to the irregularities of the most unfavorable surfaces to which it is applied. In most cases, especially in fractures, the external surface of the splints alone is spread with the starch, which is spread on it in a thin layer. If it is thought expedient to increase the firmness of the splints, one is stuck over the other, after having moistened them separately.

"A precaution essentially useful is, to prepare beforehand splints of pasteboard, broad and long, to soften them a little in water, to cover them freely with starch on both surfaces, then to leave them to dry slowly in the open air. Pieces of pasteboard so prepared are called *attelles de precaution*. It is very useful for the surgeon always to have a certain quantity of these splints ready. When wanted, it is sufficient to proportion the length and breadth of them to the dimensions of the injured part; to soften them only a little, and if they are only just moistened, they can reinforce the last bandage with a solid cuirass, which, covered with a starch bandage, maintains the fracture fixed, during the period of the dessication of the apparatus. Common splints of wood, tin, &c., may be used in the absence of these, particularly where there is a strong tendency to displacement on account of muscular spasm. The drying of the starch bandage is generally accomplished in thirty or forty hours after its application. This period may be shortened by artificial means, such as stone jars filled with hot water, or bags full of hot sand placed the length of the apparatus; exposure to the heat of the sun, of a stove, &c. Unless from urgent circumstances, it will be prudent to dispense with them in cases of complicated fracture. Unless the patient complains of pain, or much uneasiness in the injured limb; and the surgeon does not entertain reasonable fears on the state of the soft parts, it is not generally, in fractures, from the second to the fourth day that the section of the starch bandage is made. It is done with a pair of scissors invented by M. Seutin for the purpose. The section having been made, the state of the parts is to be attentively examined, and our conduct is regulated by the indications afforded by this inspection. If the apparatus fulfils the views proposed, it is made secure again by a starch bandage. Does it exercise too powerful a general pressure? relax it by contriving a separation between the edges, a suitable interval which is to be covered with a little plate of pasteboard, well softened and applied on the skin. The exterior surface of the bandage is then smeared with a coating of starch, the borders of the valves being properly held by the assistants, who raise at the same time the limb; the apparatus is then surrounded by a starched bandage, very little compressive. Folds and plaits that press the skin irregularly are to be removed; the pieces that exercise injurious local impressions are to be wet slightly with water; pieces of lint are inserted when necessary, and then the whole is surrounded by the starch bandage, care being taken to make a daily inspection to see that all is right.

"If the apparatus appears defective in any particular, do not hesitate to remove it (after having wet it with tepid water), to replace it by another, less objectionable.

"However it be, the section of the bandage has always appeared to us to

be preferable, on account of the little shaking which it communicates to the injured limb, of the facility which it leaves for its inspection, and to fulfil all the indications which may offer themselves to the examiner. Thus the longitudinal division being finished, if we remark an evident tendency to suppuration, or if the purulent secretion has already established itself; and that during the application of the apparatus, we have not made in the bandages narrow openings in the situation of the wound, to permit a passage to the secretions furnished by them, a measure which ought always to be followed when suppuration is inevitable, if a like precaution has not been taken, either we make, by means of a pointed scissors, of a bistoury, penknife, &c., one or two holes in the bandage in the site of the wounds, or we make with M. Seutin's scissors, from the longitudinal section, two transverse divisions in the starched case, one above, the other below the level of the wound, divisions which can be repeated on the other side in the case where the suppurating surface is covered by it also.

"With respect to allowing the patients to walk about, in the surgical injuries of the thoracic extremity the wounded do not in general remain in bed, except in the case of some severe complication. In the pelvic extremity, it is only after the third day, in the majority of cases, that walking can be authorized, and that after the complete drying of the apparatus is assured, and that the section of the bandage has furnished satisfactory indications. In complicated fractures, and other violent lesions of the lower extremity, we wait for, before allowing it, the resolution of the first accidents.

"In the lesions of the pelvic extremity, walking ought always to be assisted by crutches, which are covered at their lower end with a piece of cloth to prevent their slipping; by a tarso-cervical suspensory, strong, and suitably tense, and, until the patient has acquired, in walking with crutches, the desirable habit and security, by a vigorous assistant who watches his steps, and supports him at the loins by raising the clothes there.

"*Regimen of fractured Patients.*—In simple fractures the regimen is not severe; the series of local antiphlogistics usually employed (emollient and discutient fomentations, leeches, poultices, &c.,) is excluded. In compound fractures, it is confined, in the generality of cases, to increase the degree of elevation generally given to the injured limb, the body being subjected to the horizontal position, the head excepted; to a rigorous diet; to large general bleedings, cooling drinks, intestinal derivatives, and where continual irrigations of cold water were indicated, we have seen on two occasions M. Seutin apply bladders filled with ice, the length of the fractured part, surrounded with a starched bandage. The two patients were cured."—*Dublin Journal of Medical Science, November*, 1842.

Extract from Dr. O'Beirne's Observations on the Nature and Treatment of Dropsy.—It appears, then, that the general results of my inquiries on the subject of dropsy, are

First, that all the phenomena of the disease are but the products of venous obstruction; and that venous obstruction is caused either by diminished capacity of the lungs, or by an increase of the circulating mass of venous blood, or by both of these causes combined.

Secondly, that the disease is not of an inflammatory nature.

Thirdly, that the disease, with the exception of the early part of its course, is attended with more or less of general debility.

With these general results before me, let me now see what curative indications respecting hydrothorax and anasarca, can be deduced from them. The first of these results manifestly shows, that we have only to remove the venous obstruction, in order to remove the disease ; and, that this must be done either by increasing the capacity of the lungs, or by diminishing the circulating mass of venous blood.

With respect to the first of these alternatives, the capacity of the lungs is, in dropsy, either natural or diminished. When natural, as in cases arising solely from either cold or plethora, it would be absurd even to imagine that it could be increased by any means ; and when diminished, as in cases arising from hepatization and a variety of other causes, it cannot be increased without removing those causes, and consequently, without losing time which cannot be spared. It appears therefore, that we must fall back upon and adopt the other alternative, that of diminishing the circulating mass of venous blood. This being, then, the main curative indication, how is it to be carried into effect? Seeing that our object should be to relieve the obstructed state of the venous system as fully and as quickly as possible, it is clear that we should employ venesection in preference to cupping, which acts less energetically and more slowly. But what quantity of blood should be taken? The second of the general results shows, that we have not to contend with an inflammatory disease, and consequently that the quantity should not be large; while the third of these results warns us against taking more than a moderate, or rather a small quantity, perhaps from eight to ten ounces. Should we repeat the bleeding? One of the immediate effects of the first bleeding should be that of relieving the absorbent system, and enabling it to restore the effused serum to the circulating mass of blood ; and we see a proof of this being actually the case in the evident reduction which venesection causes, even in a few hours, in the swelling and œdema of the external parts. It may be safely inferred, therefore, that a short time is sufficient to restore to the venous system as much serum as compensates for, if it does not exceed, the quantity of blood which had previously been taken from the arm. We see the proof of this, also, in a fact, which I have often observed, that although the patient may at first, bear the bleeding badly, he evidently rallies in a few hours. If necessary, therefore, we need not feel any dread of repeating the bleeding. How often, at what intervals, and in what quantity should it be repeated? It should be repeated when absorption and the secretion of urine become languid, but it will rarely be required to do so more than three or four times during the treatment ; the intervals between each should be from two to three or four days, so as not to induce debility ; and, for the same reason, the quantity of blood taken should be reduced in succession from eight or ten to six, and from six to four ounces, the last being the smallest that can be of any decided service. If the patient be young, but of weakly constitution, or if he be old and feeble, and supposing, at the same time, that the disease has arrived at a considerable height, how are we to proceed? We should bleed him from a small orifice, and as much as possible in the incumbent posture ; while the blood is flowing, we should give him gin and water in such quantities as may be necessary to support him ; and, after the arm has been tied up, he should be ordered to have frequently during the day strong broths, and such other kinds of animal food as may be found to agree with him. This mode of treatment will, no doubt, appear very strange, yet it is founded upon the soundest principles, and I have employed it, as will be seen, with the most decided success. The proportions in which I have been in the habit of di-

recting gin and water to be used, are one part of the former to four or five parts of the latter, and the gin should be Dutch, not English. It is scarcely necessary to say, that I have selected this kind of spirituous liquor on account of its well-known diuretic properties. If a case be so far advanced that the cavity of the pleura is filled, or nearly so, with serous fluid, and if the patient be evidently dying from difficulty of breathing, yet not comatose or paralysed, are there any means of immediately relieving the difficulty of breathing, so as to enable us to give him a chance for his life? I cannot answer this question from experience, but it appears to me to be a case, particularly if the patient be young and has been previously healthy, in which we would be justified in instantly having recourse to paracentesis, which may be performed by a common lancet, if we should at the time not happen to have a better instrument. While the fluid is issuing from the chest, the patient should be given warm wine and water, and every restorative means should be employed; and, when a quantity sufficient to relieve his breathing has been drawn off, the wound should then be carefully closed with adhesive straps. This being done, and the restorative plan being continued, it is probable that absorption will go on, and enable us in a few hours, to find a vein from which we should take blood in a quantity proportioned to the patient's strength, from a small orifice, and in the recumbent posture. Having thus reduced the case to the state of an ordinary one, we may then treat it as such, until, perhaps, success shall have, at length, crowned our efforts to snatch a victim from the very mouth of the grave.

The next curative indication is obviously to support the patient by animal food, and the occasional use of gin and water, in order to enable him to bear not only these repeated bleedings, but also the debilitating effects of the disease. The only exception to this rule is, perhaps, the case of a young strong person, in whom an attack of inflammation of the lungs has just terminated in serous effusion. In such a case, it will be advisable to withhold both animal food and spirituous drinks for two or three days, but beyond this time, if not before, the state of the patient will not, even in this case, fail to evince the necessity of giving both.

The other curative indications are, first, to free the bowels, if confined, with compound powder of jalap, or, if their secretions and discharges be unhealthy, with calomel or blue pill; secondly, to assist the action of the kidneys by diuretics; thirdly, if the disease has arisen from hepatization of the lung or lungs, to administsr blue pill in combination with diuretic powders, as this combination often acts upon the mouth as well as the kidneys, and, by doing so, causes absorption of the coagulable lymph deposited in the cellular tissue of the lungs; fourthly, should more or less of hepatization remain after the dropsy has been removed, to employ a mild mercurial course until all dulness has disappeared, and the natural respiration is again heard all over the chest; fifthly, when the disease has been completely removed, to advise generous diet, tonics, and change of air.

Such is the treatment which I recommend in hydrothorax, and also with a few obvious modifications in anasarca, and I shall now proceed to show that it is one which I have successfully employed for nearly twenty years.

I should now proceed to detail cases of anasarca successfully treated by the same means, but as that disease is really but a mild form of hydrothorax, and as almost all the cases of it that I have met, yielded readily to a single bleeding, with diuretics and purgatives, I consider that the detail of such cases would but uselessly occupy the time of the reader. But I shall take

the liberty of directing his attention to some facts respecting the use of venesection in dropsy, which may enable him to see at once the precise difference between my treatment of the disease, and that hitherto recommended and employed. Venesection is recommended by Hippocrates, and many ancient and modern authors; and about the middle of the sixth century, Alexander Tralles, or Trallian, advocated it *per exiguas missiones*, and his successors, down to Maclean, Blackall, and still later writers on the subject, have adopted the improvement. There is nothing new, therefore, in the treatment of the disease by small and repeated bleedings. But it will be found that, without any exception, all of them have restricted venesection by so many conditions respecting the age, strength, and temperament of the patient; the organ affected; the state of the pulse and respiration; the urine being or not being albuminous; the origin of the disease from inflammation, or from the suppression of either natural or accustomed discharges; the occurrence of hæmoptysis; and a great variety of other points, that the use of this valuable remedial means really constituted the exception, not the rule. In fact, it was, and now is, so very conditional, that many have been deterred from having recourse to it in any case. Again, even the modern works on the subject exhibit the clearest admissions of the great difficulty to be encountered in steering a safe course between, on the one hand, the obvious necessity for counteracting the tendency to debility, and, on the other, the danger of exasperating a diathesis supposed to be inflammatory. But, now that the practitioner has before him views which avoid the extreme of both doctrines; now that he is supplied with a set of clear and simple rules to direct him in bleeding; now that he sees and must be convinced that he can not only support, but stimulate the patient with the greatest advantage, and without any risk; it is to be hoped that he will, sooner or later, surrender his prejudices against the use of the lancet, and adopt a practice which will not, I venture to assert, fail to answer all his reasonable expectations.—*Ibid.*

Mr. Coulson on Paralysis of the Bladder.—This complaint often attacks elderly persons, particularly those who are gouty and rheumatic. It is the result of general diminution of nervous and muscular power; the bladder being less sensible to the stimulus of the urine, and being incapable of obeying the will with the same facility as before.

Paralysis of the bladder is peculiarly, as Soemmering observes, a disease of old age; the excitability of the organic formation, particularly that of the muscular fibres, gradually decreases; the susceptibility of the nerves becomes limited, and the cellular membrane loses its tone. Hence, an attack of paralysis is often long announced by weakness in the loins, tottering in the step, and bending of the knees in walking. From this it may almost always be inferred, that a considerable alteration in the functions of the spinal marrow, and of the nerves proceeding from it and from the sacrum to the bladder, has taken place.

The bladder is rendered incapable of obeying the will with the same facility as before: no longer so susceptible of the customary excitement of the urine, it yields to the urine, and becomes distended, sometimes to an enormous size, even so much as to burst, when the patient almost immediately expires. Haller saw a bladder in a great drinker, which was able to contain twenty pounds' weight of water. Frank found a bladder so distended as to give the

appearance of dropsy; twelve pounds of urine passed at one time through the catheter, although he did not remove the whole of it.

Baillie remarks that this expansion of the bladder may arise from an accidental circumstance, where the urine accumulates whilst the muscular coat still retains its peculiar power; or the muscular coat of the bladder may likewise be paralysed, and hence be incapable of expelling the urine. The difference between these two circumstances can always be ascertained by an examination of the case during life.

Children are likewise subject to both partial and complete paralysis of the bladder. In some cases, the urine continues to pass involuntarily by day as well as by night; and then the patient suffers more or less from this complaint during the remainder of his life. When this occurs only in sleep, children should be waked up in the night, twice or oftener, for the purpose of passing urine; and they should not be permitted to take late meals, or much liquid for some time prior to retiring to rest. Indeed, they should not at any time be allowed to take much liquid. As lying on the back in bed tends to keep up this complaint, it should be guarded against. Cold bathing, preparations of iron, and other tonics, are of great use. This complaint usually improves as children get older, and often disappears after puberty, owing to the increased energy which the genito-urinary organs then experience. If it continue after puberty, the tincture of cantharides is often very serviceable, together with the occasional application of blisters across the sacrum or loins.

M. Lallemand strongly recommends the use of baths, medicated with aromatic plants; and mentions several cases which were cured by using them. After eight or ten baths the beneficial effects are usually observed, and fifteen or eighteen generally suffice for the cure. Sometimes the complaint returns after a few months; if so, the baths must be again resorted to.

I have known this state to occur after an attack of scarlet fever. A boy, now seventeen years of age, was quite well till ten years ago, when he was attacked with scarletina; and ever since that period he has been afflicted with incontinence of urine during the night.

Incontinence of urine is frequently connected with a weak and scrofulous state of constitution; and often, in these cases, all remedies are unavailing. I saw some time ago a child, six or seven years old, with a large head, pale countenance, bad teeth, prominent sternum, large abdomen, and emaciated extremities, who, from its earliest infancy, had suffered from incontinence. All kinds of remedies had been tried without success. In this case, as in many others, there was great irritability of the bladder during the day, and, unless the desire to pass urine was attended to, it flowed off involuntarily.—The urine was very acid.

In incontinence of urine, it is of the utmost importance to preserve the patient from the consequences of a perpetual dribbling of the urine. For this purpose, a receptacle should be worn during the day to contain the urine as it is passed. The contrivances in ordinary use, composed of gum elastic, are objectionable, on account of the strong urinous smell which they soon acquire, notwithstanding every attention to cleanliness. An oval glass bottle or vessel composed of copper or platina, and covered with a piece of thin macintosh, is better adapted for persons laboring under this complaint. These contrivances are made for females as well as males. During the night, patients should have a piece of macintosh cloth placed under them.

In some persons, particularly in stout females, the urine will flow involun-

tarily on lifting a weight, or coughing, or any violent exercise. In such cases, there is no pain, no blood in the urine, no desire to make water often, but merely an involuntary flow on exertion; the action of the diaphragm and abdominal muscles overcoming that of the sphincter of the bladder. In females, incontinence often occurs after distension of the urethra for the extraction of calculi or foreign bodies, and occasionally after difficult labours. Dr. Cory relates a rather interesting case of the latter, which speedily yielded to one-sixteenth part of a grain of strychnia, given three times a day. In these cases, it is probable that the sphincter vesicæ has been injured.

In the end of gestation, incontinence of urine is not uncommon, being produced by the pressure of the uterus on the bladder, by which the urine is expelled involuntarily, whenever the woman coughs or moves quickly; at least she cannot retain much of it, being obliged to void it frequently, though without stranguary. For this complaint there is no cure; and many regard it favorably, as an omen that the child's head is resting on the os uteri. When the uterus is very pendulous, some advantage may, in this respect, be obtained, by supporting the belly with a proper bandage, attached to the shoulders.

Incontinence of urine, resulting from a mere weakness of the neck of the bladder, is common in those who have had very large families, ten or twelve children, for example. In these cases, more especially if the child is large, or the pelvis small, when the labour has been severe, the bladder is apt to get so infirm about the neck, that it loses much of its retractive power, and, perhaps, from the moment of delivery, the woman is incapable of retaining the water: or if, at any time she chance to cough, laugh, rise suddenly, or in any other manner contract smartly the abdominal muscles, the water comes gushing away. For years this disease may continue with greater or less severity, but it frequently cures itself, in good measure, and the first few weeks after delivery, say at the end of the fortnight, the patient is better; at the end of the month the retentive powers are still more increased; and in the course of a few more weeks she becomes able to hold the water very well, though still liable to gushes, when sudden efforts are made. Hence, where inconvenience is the result of an enfeebled cervix vesicæ, time must be looked upon as one of the principal remedial means; in some cases, advantage may be obtained from plunging the hips into cold water two or three times daily. The improvement of the general health is by no means to be neglected, for the more you improve the general health, the more you will increase those healing powers of the parts on which all cures are more immediately dependent.—*On Diseases of the Bladder, and Prostate Gland, &c.*, pp. 59–64.

Treatment of Hæmaturia.—In some cases of hæmaturia, the bladder is completely filled with coagulated blood, and the surgeon finds the greatest difficulty in relieving the organ of its contents.

In five cases of an extreme and urgent kind, M. Leroy d'Etiolles succeeded in evacuating the bladder by frequently introducing a very large gum elastic bougie, without a stilette. In one case the instrument was passed more than 100 times in a few hours, and two quarts of coagulated blood removed.—*Prov. Med. Jour.*, Sept. 17, 1842.

Typhus in Old Age.—Some years ago M. Chomel declared that he was not aware of a single authentic case of typhus fever in a person above the

age of fifty-five. Since that period, M. Prus has reported an instance of a person seventy-four years of age who was affected with that disease; and M. Rayer has recently had a case in which the patient was fifty years of age when attacked.—*Lond. Lan.*

BIBLIOGRAPHICAL NOTICE.

On the Usefulness of the Medical Profession, beyond the limits of the Profession. A Lecture Introductory to the Course of Practice of Medicine in Jefferson Medical College of Philadelphia. Delivered November 4, 1842. By J. K. MITCHELL, A.M. M.D. Published by the Class. Philadelphia: 8vo. pp. 30.

Professor Mitchell justly remarks, that "of all the professions and pursuits of life, that of medicine demands, in its ordinary preparation, the greatest extent and variety of knowledge," and hence the necessity of an extended preliminary education for those destined to the medical profession.

"The world at large associates with a defective education the idea of professional ignorance and incapacity; that many very valuable works are published in foreign languages, and that, independently of the actual acquirements in the course of a scholastic education, the habits of attention, of arrangement, and digestion, are fertile means for medical attainments. Few thinking men, therefore, such as govern public sentiment, are willing to believe that an uneducated man can acquire or does possess as extensive or as well defined a knowledge of his profession, as one who has had the gain and the discipline of scholastic instruction. For these reasons, physicians, even in this go-ahead and hasty country, are generally much better educated than the mass of beings around them, and, if we take *science*, as well as learning, into the account, than the members of the other learned professions."

This fact is abundantly shown by the numerous and daily contributions to the literature of our country by physicians of high professional rank. To the catalogue which the professor subjoins might be added his own name; for amidst the occupations and distractions of a large practice and onerous professorship, he still finds time

"To pour the unpremeditated lay."

"Dr. Comstock writes on, and teaches admirably, elocution; Dr. Bird stands in the front rank of American dramatists and novelists; Dr. Standbridge composes useful works on the philosophy and practice of music; Dr. Holmes soothes his wearied professional spirit with tones of the poet's lyre, such as command the listening ear of the country, and are heard beyond the broad Atlantic; Dr. Dunglison delivers to immense and delighted audiences, lectures on the instincts of animals; or instructs and amuses them with disquisitions on the curiosities of popular superstitions; Dr. Wood retires from his beautiful botanical collection, to pen an able essay on "The British Pos-

sessions in India." Some of you may have heard our colleague, Dr. Meigs, busy almost to impossibility, lecturing at the Athenian Institute, on the "Age of Augustus," and the "Siege of Jerusalem," with an eloquence and interest, as though nothing else could have occupied his mind for years. Dr. Morris, whose busy life every one knows, finds time to make an excellent abridgement of the Life of Wilberforce. Dr. Benjamin Coates invents a matchless balance with one hand, while he fashions with the other a racy ode to an "Antediluvian Fossil;" and his talented brother, Dr. Reynell Coates, is just offering to the world the fruits of his extensive learning in a new journal, to be called the Literary Age. Dr. Patterson, the accomplished President of the U. S. Mint, is ever ready to disburden, for public good, his powerful mind, richly stored with the wonders of Astronomy and the utilities of Natural Philosophy; while Dr. Hare, of world-renown in science applied to medicine, amuses himself and instructs others, with profound memoirs on atmospheric storms, and public currency and credit. Professor Dickson has just reached his southern home, after having delivered at Yale, the annual oration to its Alumni; a discourse of which Fame has spoken to the country. My indefatigable friend, Dr. Bell, issues in rapid succession, valuable works on baths, on health and beauty, and on the art of prolonging life; works presenting discursive knowledge of great extent and variety. Still farther from the beaten path of medicine, he wrote the lives of distinguished painters, and delivered discourses on their favourite subject to the artists of the Academy. Dr. Emerson, advancing from curious and elaborate statistics, just within the circle of medical philosophy, instructs and gratifies the class of the Franklin Institute with learned and ingenious lectures on meteorology. It is but a few days since I was absorbed in the pages of an able and interesting work, the Life of Bainbridge, the naval hero, written by Dr. Thomas Harris. If we did not now know how much has been done by the profession, for extrinsic departments of learning, we should be at a loss to conceive where the busy surgeon found time to read so much, and to write so well. Who now thinks of a voyage round the world, without recalling to mind the rich and instructive volumes of Dr. Ruschenberger! The same gentleman stoops forom the lofty field of general literature, to perform, aye, and well too, the benevolent and useful duty of forming books for schools, where the sciences are made familiar and agreeable to the young mind of the nation.

But I fear I grow tedious, not because of the worthlessness, but the very richness and prolongation of the catalogue. I will, therefore, merely allude to the travels of Mott and Gibson, the reviews of Elwyn, the musical essays of La Roche, the Siamese memoir of J. Rhea Barton, and the literary lectures of Pancoast, and Mütter, and Jackson and Condie.

I should fail in justice to the man, and in respect for the preceptor, if I did not say something of the five large volumes of "Select Speeches, Forensic and Parlimentary," collected, arranged, and published in early life, by Dr. Chapman, the taste in the selection of which, is surpassed only by the exquisite general preface, and the pertinent, elegant, and impressive remarks, with which the editor introduces each of the many orations of the extensive collection.

Is not this a wondrous view of the learning, industry, public spirit, and talent of the profession, and does it not more than excuse the enthusiastic sage of Cos, when he declares, that "whatever really constitutes wisdom is to be found in medicine?"—*(Hippoc.)*

Not alone as writers on topics either remote from, or slightly connected

with, professional pursuits, do physicians stand, as a class, distinguished, at least, in our country. They are also often conspicuous for varied accomplishments, by which they not only adorn, but serve society. There is near me a surgeon, of the highest rank in his profession, who is a good modeller, an inventive designer, a man of taste, and a promoter of everything tending to elevate and refine society. I see another, who has, perhaps, in the world no superior in his art, who draws beautifully, models exquisitely, and is a master in music. Here is a botanist, there a geologist, a conchologist, a chemist, a meteorologist, a metaphysician, a politico-economist, an astronomer. The room in which I lecture, accidentally contains many professional gentlemen, each distinguished for knowledge of some one or other of the departments of general knowledge, or adorned by literary taste, or conspicuous for social accomplishments.

It is, gentlemen, when taking such a survey of the merits of the profession, that we must feel the greatest pride in it, and felicitate ourselves on being of a corps professionally so indispensable, scientifically so important, and socially so valuable to the country.

The following paragraphs contain much practical good sense, clearly and neatly expressed:

Now, it is a curious fact that among the trades, occupations and professions, medicine alone sends its votaries annually to the great fountain of metropolitan knowledge. Like as to a vast heart, the channels of public circulation bring, every successive year, from every quarter of our proudly-spread country, streams of medical aspirants; who return again a rich freight of intellectual treasure, to the unforgotten fields of kindred and friends. This mighty moral and intellectual circulation is among the richest products of the land. I waive the advantage to those who come and go, vast as it is. I overlook, for the present, the proud store of professional good poured into the recesses of the forest, carried to the sources of the distant rivers, and laid at the majestic feet of the spinal mountains of the continent. I will not even insist on the civilizing effect of a never failing contact with the great centre of refinement. But I will declare that the political value of this circulation is far above them all. It may at first view seem rather startling to say so; but let us go into the account, and, as the merchants say, strike a balance.

It cannot be denied that our happy country is tied together solely by the *force of opinion.* We have here, thank God, no other fetters than the golden chains of patriotic fellowship. It is because the men of the north, and of the south, and of the west, agree to look upon each other as countrymen, that we are an undivided people, though spread over an almost measureless territory, and inhabiting climates of the greatest dissimilarity. The hewer of granite in New Hampshire, the cultivator of wheat in Pennsylvania, the raiser of hemp in Kentucky, and the planter of cotton and sugar in Louisisiana, claim as a common right, the principles of the Declaration of Independence, and look proudly up to the stars and stripes which waved at Yorktown.

The stranger who traverses our vast country, is forcibly struck with the great uniformity of our manners and language. In England the people of adjacent counties scarcely understand each other, though professing alike to speak the English language. The field labourer of Lancashire has a dialect which confounds the agriculturist of Yorkshire; either would be puzzled to translate into common English, the peculiarities of the man of Somersetshire.

It is so, also, in France, where the lower orders, as they there choose to call the peasantry and the artisans, speak such a diverse *patois*, in different districts, as to confound the ear of a Parisian. Nothing, therefore, more surprises the traveller, than the absence of a marked or unintelligible *patois* in any part of our country. It is true that we have German settlements, where they speak Dutch, French settlements, where the oral language is French; and Irish and Scotch districts, where those who relish a rich brogue, or a Doric dialect, may be thoroughly indulged. But English, when spoken by Americans, is always intelligible to Englishmen, whether they hear it in Boston or Savannah, in New York or Natchitoches. While much of this uniformity depends on the fact, that the early settlers in our country were educated men, and men who strove hard to give to their children the precious boon of scholastic instruction, yet, that our English should have stood so long pure against the corrupting influence of example imported from all nations, and of time and carelessness on our own part, can only be explained by supposing that the resort of students of all kinds, but especially of medical students, to the great common centres of learning, has in no small degree contributed to a result otherwise totally unintelligible. In the same way we may explain the unusual uniformity of manners and habits, so often commented on by foreigners, favourably or unfavourably, according to their taste or caprice.

Now I hold that of all the bonds of union by which a people, so diffusely spread as we are, can be kept united, none is more potent than the sameness [identity ?] of language and manners. It makes intercourse easy and agreeable, it promotes good fellowship, and it creates an almost instinctive horror of disseverance. The disruption would be as of one family, whose taste and sentiment, and language and manners are in kindly unison.

Of all men the physician enjoys the best opportunity of disseminating his sentiments, and conveying his example. He visits every family. He converses with the women and children, and domestics; and the more wild and remote his field of labour, the more frequently and the longer is he thrown into their society. He is not confined, like the lawyer to his court, or to contact with men, or like the clergyman, to the pulpit or the rare visitation. He is often almost domesticated; he is looked up to confidingly, and he is considered as competent authority in most of the things that usually interest a domestic circle. His opportunity, therefore, of impressing his manners and habits and language on the people is unparralleled.

Stored with science, and learning accumulated both at classical seminaries and schools of medicine, the educated physician is usually disposed to contribute a portion of his knowledge to the benefit of his own little community. He therefore is, both from capacity and disposition, foremost in promoting the literary enterprize of his district. How few lyceums are built up or carried forward without his agency. Few weeks pass without an application to me to deliver a lecture in some near or distant lyceum; and it rarely happens that the invitation is not brought or sent by some liberal physician, who not only teaches himself, but solicits aid from others. Giving as much credit to other professions as is their due, we must admit that in this, as in a thousand ways, the American faculty of medicine, by making uniform our manners, enlightening our sentiments, and invigorating our reason, adds immensely to public security and public union.